

SUPPLEMENTARY DATA

Dynamic Energy Dependency of *Chlamydia trachomatis* on Host Cell Metabolism during Different Stages of Intracellular Growth: Possible role of Sodium -based energetics in Chlamydial ATP generation

Pingdong Liang, Mónica Rosas-Lemus, Dhvani Patel, Xuan Fang, Karina Tuz and Oscar Juárez

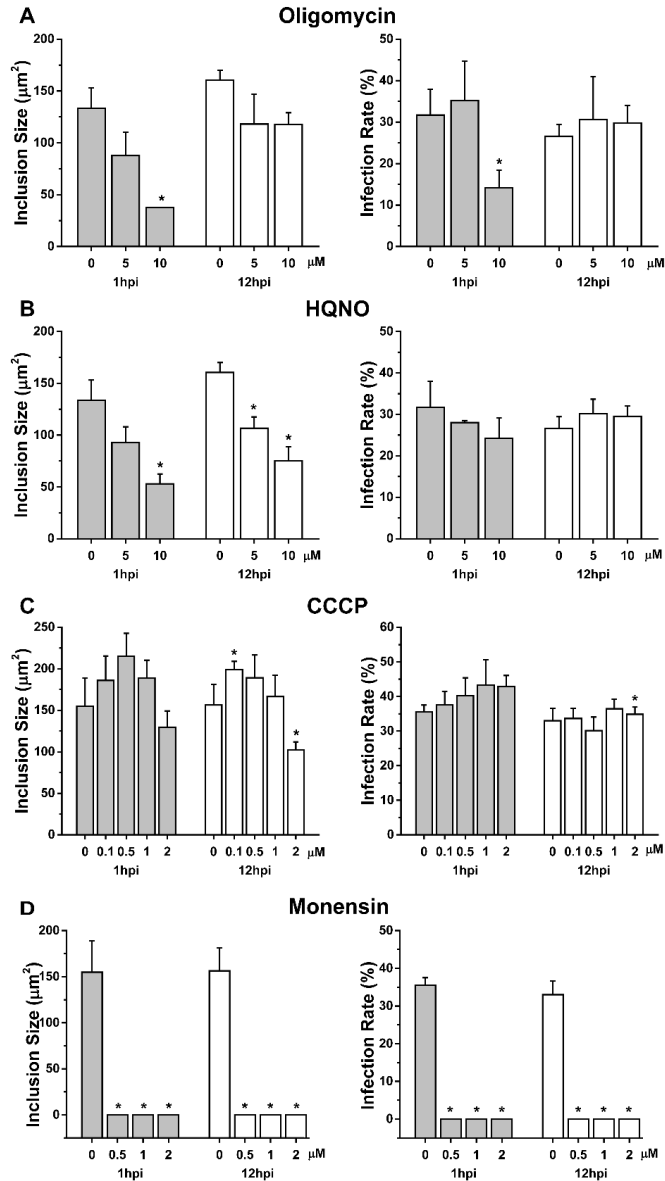


Figure S1. Effects of respiratory chain inhibitors and ionophores on Chlamydial infection in HeLa cells. The inclusion size and the infection rate of *C. trachomatis*-infected HeLa cells were evaluated at 36 hpi by analyzing the immunofluorescence of cells cultures stained with anti-MOMP antibodies and secondary fluorescently labeled antibodies. 200 inclusions were measured per condition per experiment using Image J. A) Oligomycin 0, 5, 10 µM; B) HQNO 0, 5, 10 µM; C) CCCP 0, 0.1, 0.5, 1, 2 µM; and D) Monensin 0, 0.5, 1, 2 µM were added at 1 hpi or 12 hpi. Error bars indicate the standard deviation of the mean, n = 3. Asterisk denotes significance from vehicle-treated control. *, p<0.05.

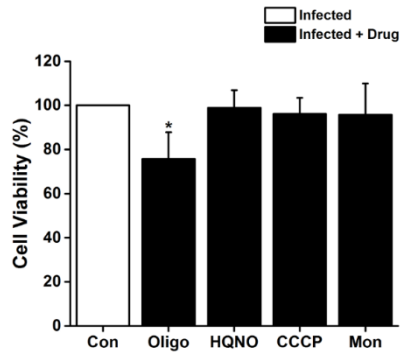
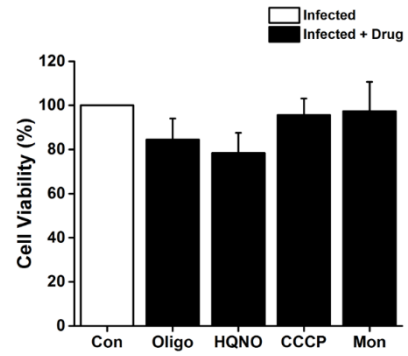
A Drug Treatment at 1hpi**B Drug Treatment at 12hpi**

Figure S2. Viability of *C. trachomatis*-infected HeLa cells. Infected HeLa cells were treated with 10 μ M Oligomycin A (Oligo), 10 μ M HQNO, 2 μ M CCCP or 2 μ M monensin (Mon) at 1 hpi or 12 hpi and stained with HEMA 3 staining at 36 hpi. The number of cells per field were quantified in at least 5 random fields per sample. Results are expressed as mean \pm S.D. of 3 different experiments per condition. Asterisk denotes significance from vehicle-treated control (Con). * $p < 0.05$.

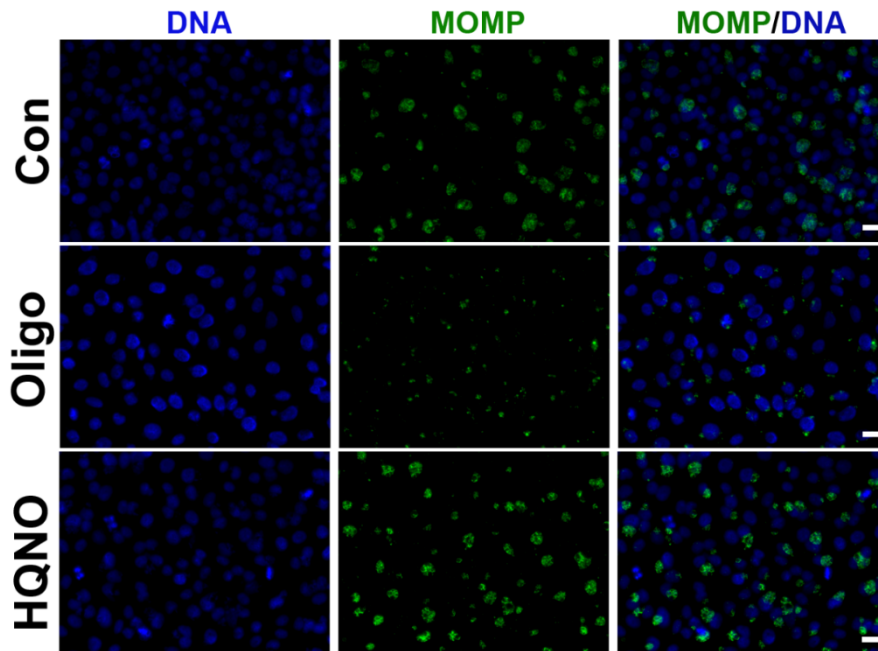


Figure S3. Immunofluorescence images of *Chlamydia trachomatis*-infected HeLa cells treated with respiratory inhibitors at 1 hpi. Representative images of *C. trachomatis*-infected HeLa cultures treated with 10 μ M Oligomycin A (Oligo) or 10 μ M HQNO at 1 hpi and immunostained with anti-MOMP antibodies (green) at 36 hpi. DNA is visualized with Hoechst 33342 (blue). Scale bars represent 20 μ m. MOMP/DNA merged images correspond to those in Fig. 4A. Fluorescent channels are shown separately for clarity.

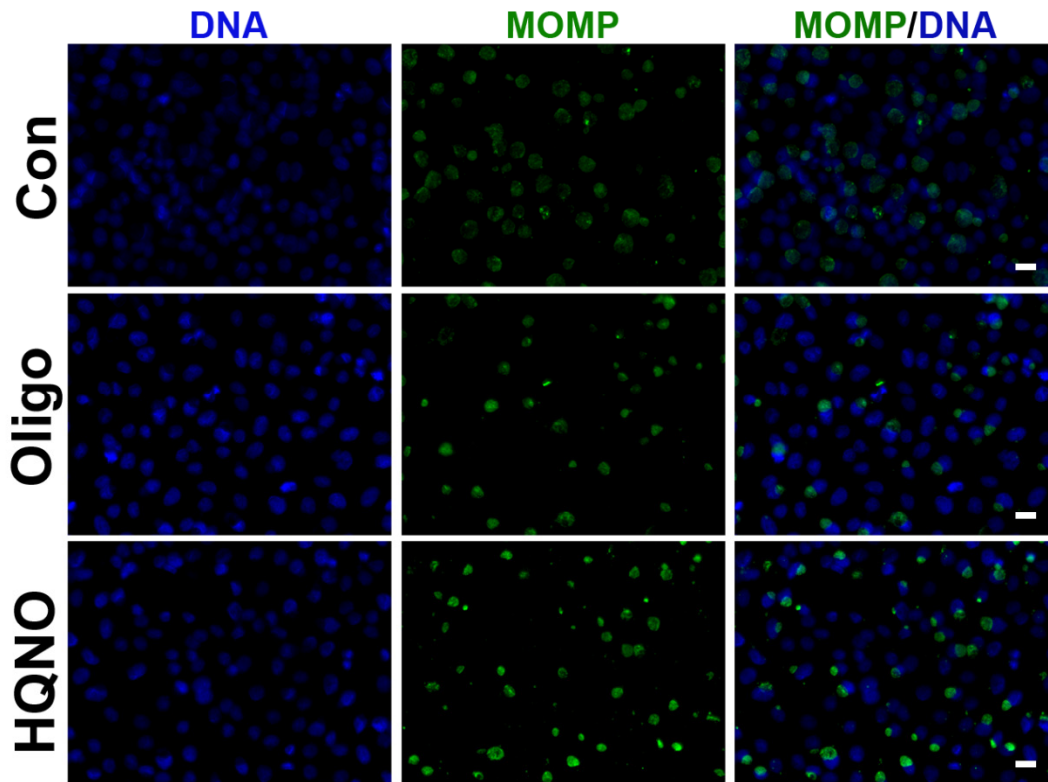


Figure S4. Immunofluorescence images of *C. trachomatis*-infected HeLa cells treated with respiratory inhibitors at 12 hpi. *C. trachomatis*-infected HeLa cells were treated with 10 μ M of oligomycin A (Oligo) or HQNO at 12 hpi and immunostained with anti-MOMP antibodies (green) at 36 hpi. DNA was labeled with Hoechst 33342 (blue). Scale bars indicate 20 μ m. Merged images correspond to those in Fig. 4B.

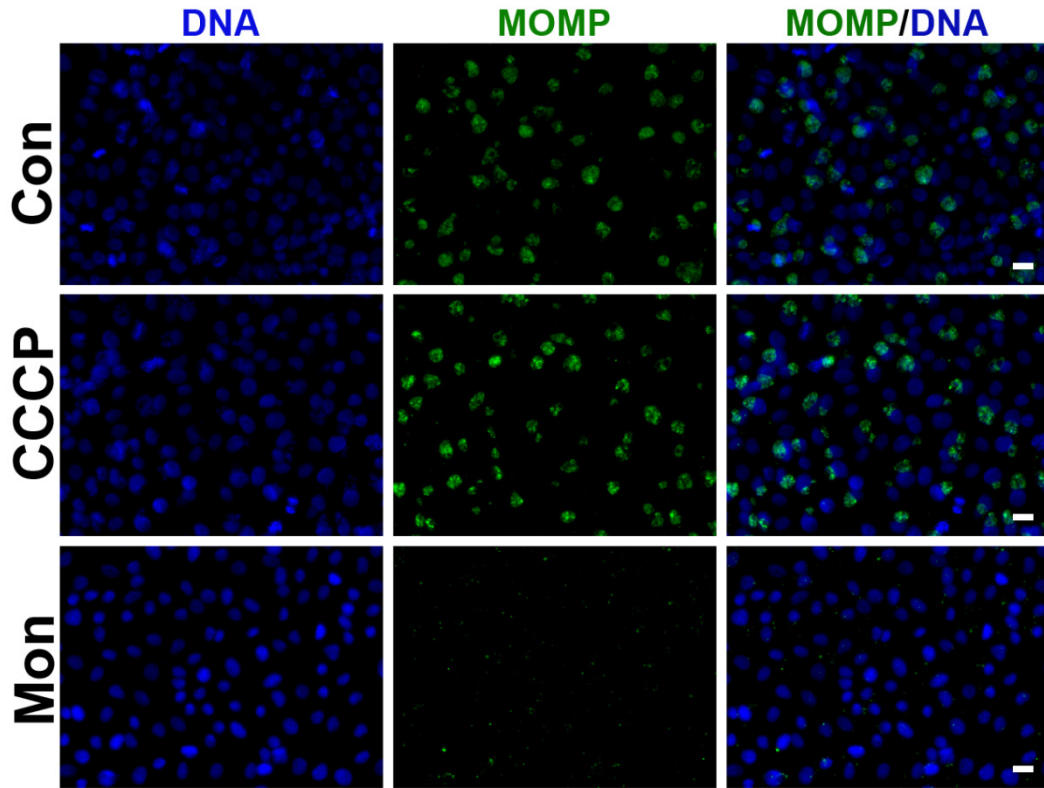


Figure S5. *C. trachomatis*-infected HeLa cells treated with ionophores at 1 hpi. Representative immunofluorescent images of *Chlamydia trachomatis*-infected HeLa cultures treated with 2 μ M monensin (Mon) or CCCP at 1 hpi and immunostained with anti-MOMP antibodies (green) at 36 hpi. DNA is visualized with Hoechst 33342 (blue). MOMP/DNA merged images are the same shown in Fig. 6A. Scale bars = 20 μ m.

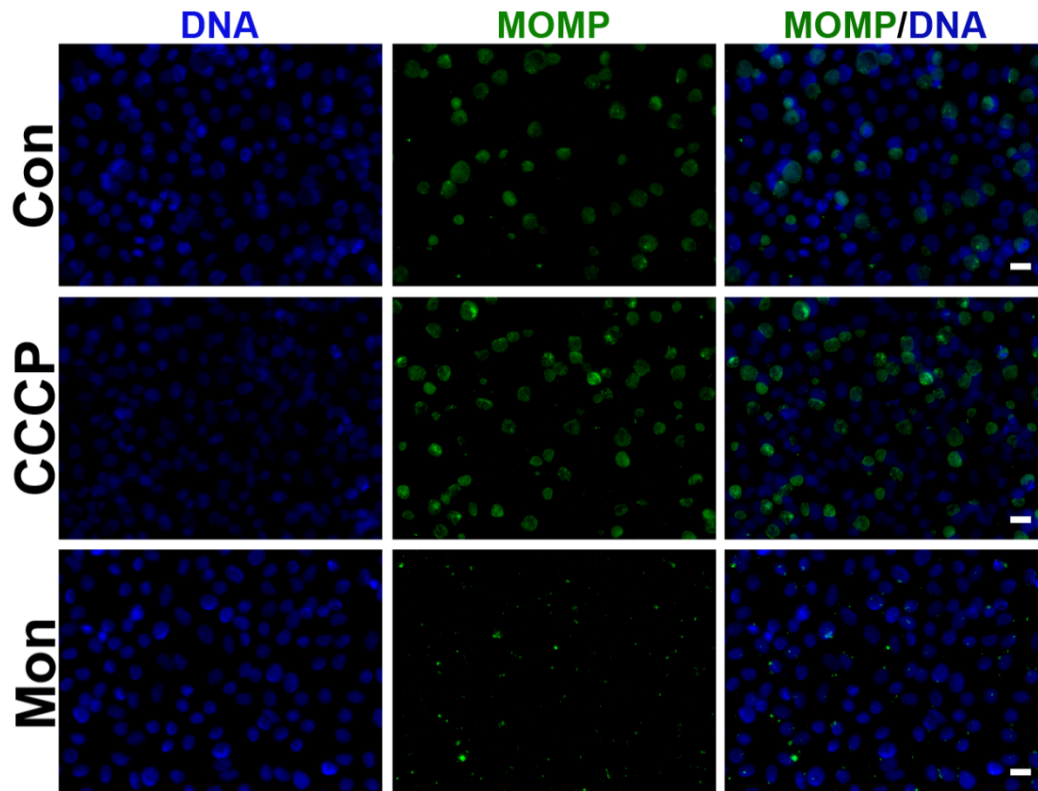


Figure S6. *C. trachomatis*-infected HeLa cells treated with ionophores at 12 hpi. Representative immunofluorescent images of *C. trachomatis*-infected HeLa cultures treated with 2 μ M monensin (Mon) or CCCP at 12 hpi and immunostained with anti-MOMP antibodies (green) at 36 hpi. DNA was labeled with Hoechst 33342 (blue). Merged images are the same as in Fig. 6B. Scale bars = 20 μ m.